Lesson Plan 24

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| **Title**: **Chapter 35: Diffraction** | | **Ref. No**: Week 13,  Day 2 | | |
| **Target Group/Population**: B. Sc students (CS, EEE and IPE) | | **Duration**: 90 min | | |
| **Aims/Rationale**: To give the students basic concepts of single-slit diffraction | | | | |
| **Learning Outcomes**: At the end of the session, the students will be able to understand and analyze above topics and apply those to solve related problems. | | | | |
| **Contents:** 36-1: Single-slit diffraction | Method or  Technique | | Resource  or Aid | Time |
| **Introduction**:   * Welcome address * Rapport building * Review the main topics of last lecture * Importance/bridging the topic * Pre-assessment of student’s knowledge | Lecture  QA | | WB  MMP | 15 min |
| **Development**:  1. With appropriate figures, find the general equation of diffraction minima by a single-slit. | Lecture  Discussion QA  Problem Solving  3rd quiz | | WB  MMP | 60 min |
| **Conclusion**:   * Quick recap/summary * Feedback from the students * References * Forward planning |  | | WB  MMP | 15 min |
| Problems:  2. What must be the ratio of the slit width to the wavelength for a single slit to have the first diffraction minimum at *θ =* 45.0°?  7. Light of wavelength 633 nm is incident on a narrow slit. The angle between the first diffraction minimum on one side of the central maximum and the first minimum on the other side is 1.20°. What is the width of the slit? | | | | |